

PATENT
Docket No. H 5165 PCT/US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Wolff et al. Grp./A.U.: 1751
Appl. No.: 10/691,427 Examiner: Eisa B. Elhilo
Filed: October 22, 2003 Customer No.: 000055495
Confirm. No.: 7828
Title: ACTIVE INGREDIENT COMBINATIONS FOR HAIR-DYEING AGENTS

Declaration Under 37 CFR 1.132

Sir:

I, Dr. Mustafa Akram, declare as follows:

- 1) I am a co-inventor of the subject matter of the above-identified patent application.
- 2) I received the degree of Diplom in Chemistry from Martin Luther University Halle - Wittenberg in Halle, Germany in 1978. I then received a Ph.D. in Organic Chemistry with the degree of Dr. rer.nat. [Doctor of Natural Science] from Hamburg University in Hamburg, Germany in 1984.
- 3) In 1985, I joined a company which was a predecessor to the assignee of the present application (Hans Schwarzkopf GmbH & Co. KG, hereinafter referred to as "Schwarzkopf") as a chemist in the Hair Dye Synthesis Group. From 1990 to 2003, I was the Senior Manager of the Color Development Department at Schwarzkopf. Since 2003, I have been the Director of Schwarzkopf's R&D department for Perms and Colors.
- 4) I have read and am familiar with the rejections set forth in the parent patent application, S.N. 10/691,427. I have also read and am familiar with the references cited as the bases for these rejections, specifically, U.S. 5,143,518 (Mandrige et al.), U.S. 5,735,908 (Cottcret et al.) and U.S. 6,312,677 B1 (Millequant et al.).
- 5) Under my direction and control, the following formulas were applied to strands of European (dark blond gold) and Asian (black) hair under the following conditions:

Ratio of mixture: 1 with 6% aqueous hydrogen peroxide solution
Application time: 30 minutes at room temperature

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5.143.518		
	13	13/1
Lauric acid	10,10	10,10
Triethanolamine	8,51	8,51
Merquat 100 ^A	2,00	--
Merquat 3330 ^B	--	8,00
Alkyldimethylhydroxy ethylammonium chloride	3,00	3,00
Ethanol	11,00	11,00
Propylenglycol	2,00	2,00
Abil 9905	2,10	2,10
Na-m-bisulfite 35%	1,30	1,30
Ammoniak 20%	10,00	10,00
Water	49,99	43,99
	100,00	100,00

A- 39-44% by wt. active polymer

B- 9.4-10.4% by wt. active polymer

6) Protocol:

The formula 13 corresponds as closely as possible to formula 13 of US 5.143.518 whereas formula 13/1 differs from this by the choice of the conditioning polymer. In formula 13/1 the cationic polymer Merquat® 100 is replaced by the amphoteric polymer Merquat® 3330. The amounts used are chosen in a such a manner that the amount by weight of active substance is equal in both samples. In both samples no oxidative dye precursors are used as it is usual while testing conditioning substances in the field of hair dyes. After the application time the hair was shampooed thoroughly. Afterwards a conditioning rinse was applied and also rinsed thoroughly. The grip and the combability of the wet and of the dry hair (dried with air blower) were judged independently by 5 persons skilled in the art.

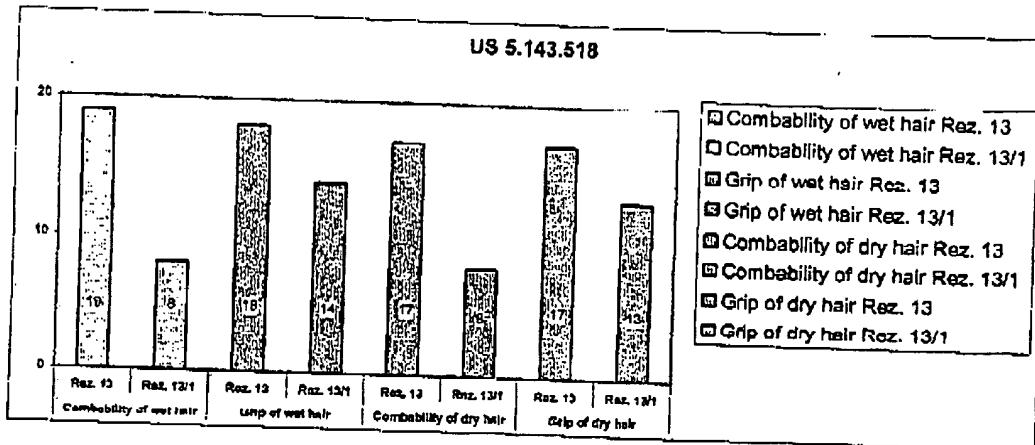
7) The results were as follows:

- 1 very good
- 2 good
- 3 satisfying
- 4 adequate
- 5 inadequate

In order to achieve the final result the marks are added; the sums of the marks are depicted in the following diagram. The following table correlates these sums with the

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Combability of wet hair		Grip of wet hair		Combability of dry hair		Grip of dry hair	
Rez. 13	Rez. 13/1	Rez. 13	Rez. 13/1	Rez. 13	Rez. 13/1	Rez. 13	Rez. 13/1
19	8	18	14	17	8	17	13
4	2	3	3	3	3	3	2
3	1	4	3	3	3	3	3
4	2	3	2	3	2	3	2
4	2	4	3	4	3	4	3
4	1	1	3	4	3	4	3

9) Analysis:

The results show that Formula 13/1 (according to the present invention) exhibits unexpectedly smaller values, which means that the combability- and grip-behavior is improved as well for the wet as for the dried hair.

10) I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-referenced application or any patent issuing therefrom.

Mustafa Akram
Dr. Mustafa Akram

Date: 13.08.2005